
IDS701

Weighing Indicator

User manual

**safety instruction**

For safety operation pls. follow the safety instruction.

**WARNING**

set. Calibrate, inspect and fix the the weighing indicator is prohibited by
Non professional staff

**WARNING**

Pls. make sure the weighing display well earthing

ATTENTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

**WARNING**

The indicator is electrostatic sensitive device, pls.
power off during electrical connections, internal
components touched by hand is prohibited, and please
take the anti-static measure

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1. Summary

IDS701 is the latest weighing indicator by LOCOSC, which is specially designed for platform scale with friendly interface, simple operation, steady feature. The Basic function includes Weigh, Peak hold, Print. Communicate, Options are accumulate, Count and animal weighing.

1.1 Main function

- » basic weighing function: zero tare
- » low battery remind charge and stop charge controlled
- » PC communication

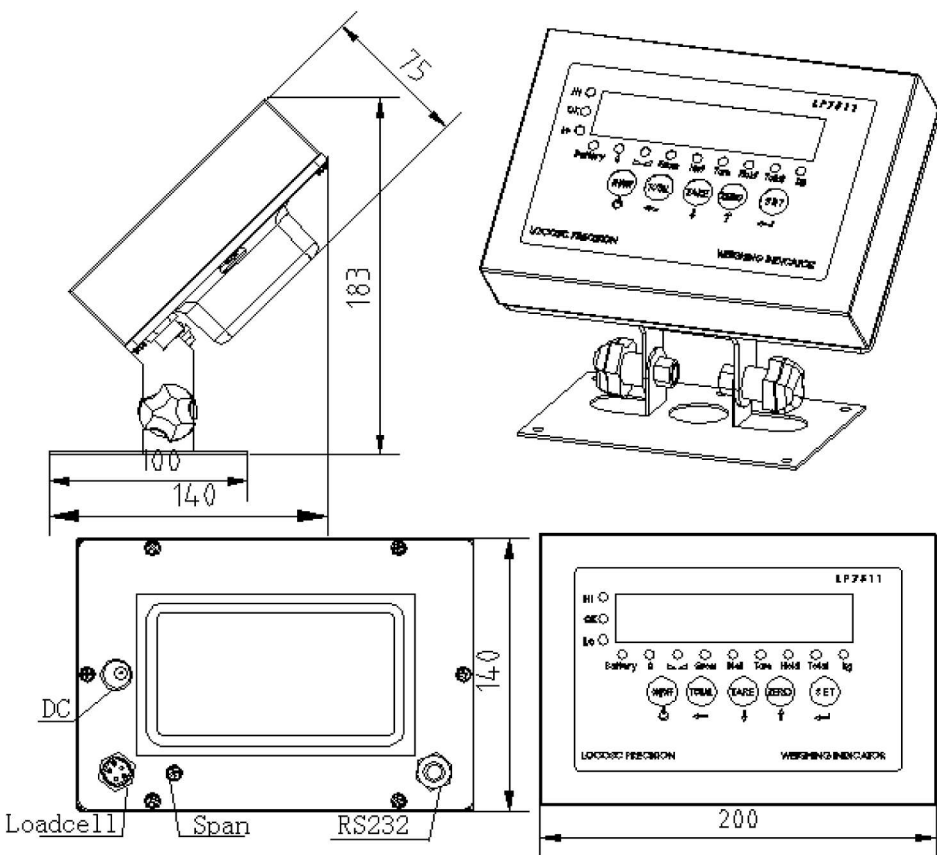
1.2 Optional function

- » accumulating function
- » animal weighing
- » printing function(with time)

1.3 Technical parameter

- » Stimulating voltage: +5VDC
- » A/D converting speed: 10 times/sec
- » load capacity: it can connect 4 pcs 350 Ω load cell at most
- » weight unit: kg
- » Resolution: 3000e
- » Interval: 1/2/5/10/20/50
- » Display: 6-digits LED, word height: 20.3mm
- » key: ON/OFF TOTAL TARE ZERO SET
- » Interface: RS232C Baud rate optional 1200/2400/4800/9600
- » Ambient temperature: -10 \sim 40 $^{\circ}$ C
- » Storage temperature: -20 \sim +60 $^{\circ}$ C
- » optional power: 6V/4Ah rechargeable battery; 9VDC adapter

1.4 Outline and installation picture



1.5 Battery

1. when you use the internal battery first time, you should charge the battery 10-12 hours, to prevent low voltage resulted from self leakage of battery.
2. when the red battery light is on and flashes, it means low

battery You should charge battery in time.

3. Charge time: 10-12 hours And it works 45 hours

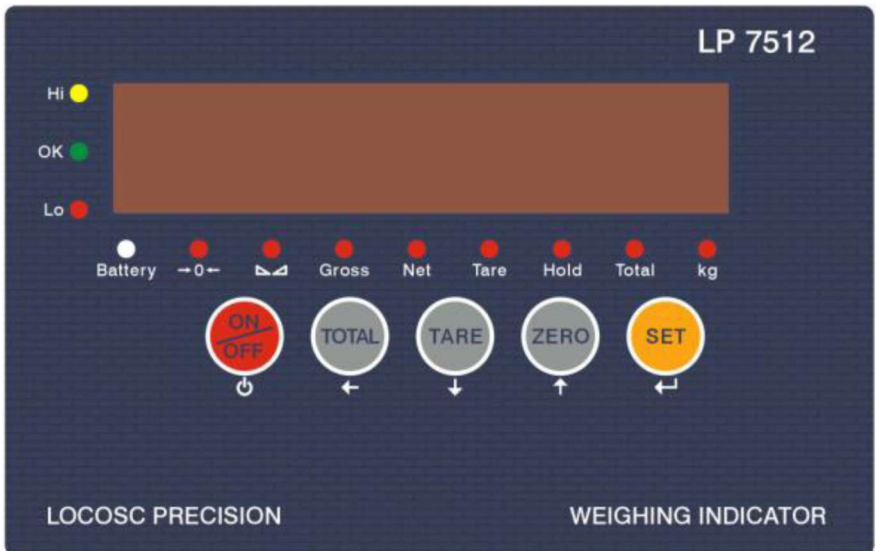
4. When the battery light turns green, it means fully charged

5. If you don't use the battery long time, take out the battery to protect t the indicator from battery leakage



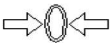
6. In order to keep the battery in best using condition, it is suggest that you fully discharge the battery every month, the method is that using the indicator till it is automatically power off.

2. Basic operation






2.1 Key and display



IDS701 Weighing indicator display instruction

LED display	instruction
	Weighing data display
Total	accumulating
Tare	Display tare weight
Net	Display net weight
Gross	Display gross weight
	Display data keep still
	zero, indicating zero weight
Battery	Using battery
Hi	Over setting weight
OK	Within setting weight
Lo	Below setting weight
°	Decimal point
X10	10 times resolutin display

Key's function

Key symbol	Key name	Key function
	SET	Work together with zero, tare, on/off to perform all operations.
	ZERO	1.Clear weight within zero range 2. Work together with SET to perform Hold and animal-weighing operation.
	TARE	1.At Gross mode, tare the loaded weight 2.At Net mode, display gross weight after deduct tare
	TOTAL	Work together with SET perform accumulating operation
	ON/OFF	1.Press it for 2 seconds to power on or power off 2.Work together with "SET" to enter calibration and function setting.


2.2 Power on

Power on and indicator perform self-checking and go to weighing mode.


2.3 Zero setting

Within zero range, press "zero", indicator weighing is cleared. When Indicator is not stable, zero is unworkable.

2.4 TARE



Press , take the loaded weight as tare, display net weight,

Net weight is zero. “tare” “net” status light is on.

At gross zero, Press , clear the tare, display gross weight.



2.5 TOTAL

Accumulation operation

At Zero mode, load weight till stable, Press  go to accumulating Mode,” total” light on, display” n001”, and then display loaded weight; unload weight , back to zero, load weight again till stable. Press , display”n002”

Then display the loaded weight. Repeat it maximum 999 times.



Check the total weight operation:


Press  and hold it then press 

At the same time, display ”n**”, (accumulating times) then display total weight.

There are 8 data totally. It shows the first 4 digital. then the last 4 digital
For example, the first 4 digital is”0012”, the last 4 digital is”34,56”
It means the actual weight is “1234.56”

At TOTAL (accumulate)mode, Press  display “ clr n”, it means don't

clear the total Weight, Press  exit it; if clear total weight, Press  “clr n” change to “clr y” it means clear total weight display. Press

 to clear the the total weight and exit accumulating mode.

2.6 Print function

When the data is stable, connection with printer, it will be printed after press“set”1 second.

Note: print the gross weight when at tare mode , if the net weight is zero.
Can not print.

3. Calibration and parameter setting

3.1 Application function parameters setting chart

Function	Setting Item	parameters setting and instruction
warning tone	C08 warning tone	Options: 0 = close warning tone 1 = open warning tone
Automatic power off	C09 Automatic power off	option: 0=close auto power off 10= keep still within 10 min. power off automatically 30= keep still within 30 min. power off automatically 60= keep still within 60 min. power off automatically

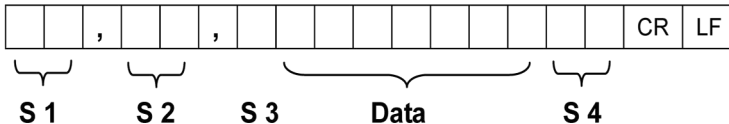
Power saving setting	C10 Power saving setting	option: 0= close power saving setting 3= keep still within 3 min. stop display 5= keep still within 5 min. stop display
Hold function	C11 Hold mode	option: 0=close hold function 1=Peak hold /2=Data Hold instruction: Peak : it shows the max. data, mainly application for materials testing, such as tension and pulling force. Hold: it shows current weight value. Mainly application for animal weighing.

Upper/lower limit alarm	C13 Upper limit alarm value	You can set it within the max. capacity limit
	C14 Lower limit alarm value	
Inner Code display	C15 Check inner code	At setting function mode, after directly enter C15,indicator will show inner code
Date and time	C16 Date	Enter C16, you can direct to set the current date, from left to right: year/month/day
	C17 Time	Enter C16, you can direct to set the current date, from left to right: year/month/day
Communication setting	C18 Serial interface	option: 0= Close serial interface data output

	data output method	1= Continuous sending, connect big display 2=print method, connect printer. 3= Command request method , connect computer. 4=PC continues to sending format, connect computer.
	C19 Baud rate	option: 0=1200/1=2400/2=4800/3=9600

4. Output data format

4.1 Computer continuous sending format



S1: weight status, ST= standstill, US= not standstill, OL= overload

S2: weight mode, GS=gross mode, NT=net mode

S3: weight of positive and negative, "+" or "-"

S4: measurement unit, "kg" or "lb"

Data: weight value, including decimal point

CR: carriage return

LF: line feed

4.2 Big display continuous sending format

Output continuous format																		
S	S	S	S	X	X	X	X	X	X	X	X	X	X	X	X	X	C	C
T	W	W	W													R	K	
X	A	B	C														S	
1	2			3						4						5	6	

State A			
Bits0,1,2			
0	1	2	Decimal point position
1	0	0	XXXXXX0
0	1	0	XXXXXXX
1	1	0	XXXXX. X
0	0	1	XXXX. XX
1	0	1	XXX. XXX
Bits3,4			Division
0		1	X1
1		0	X2

State B	
BitsS	function
Bits0	gross=0, net=1
Bits1	symbol: positive =0, negative =1
Bits2	overload (or lower zero) =1
Bits3	dynamic=1
Bits4	unit: lb=0, kg=1
Bits5	Constant 1
Bits6	Constant 0

State C			
Bit2	Bit1	Bit0	unit
0	0	0	Kg or lb
0	0	1	g
0	1	0	t
Bit 3			printing=1
Bit 4			Extend display=1
Bit 5			Constant 1
Bit 6			Constant 0

4.3 Serial interface reception command:

RS232COM serial interface can receive simple ASCII command.

Command word and role as follows:

Command	name	role
T	Tare off command	Save and clear tare
Z	Zero command	Zero the gross weight
P	Print command	Print the weight
R	Read gross/ net weight	Read gross/net weight

4.4Print output format

NO. 004 (NO.)

Date: XX.XX.XX (year. month. date)

Time: XX.XX.XX (hour. minute. second)

G.W: 8.88kg (gross, example for two decimal point)

T.W: 2.88kg (tare)

N.W: 6.00kg (net)

4.5 Print the accumulated output format

NO. 004 (NO.)
 Date: XX.XX.XX (year. month. date)
 Time: XX.XX.XX (hour. minute. Second)
 Total: 003 (accumulate times, example for 3 times is 003)
 Total: 2.88kg (accumulate weight)

5. Maintenance

5.1 Regular Error and maintain method

Error	Reason instruction	Solution
Display UUUUUU	1. the loaded weight excess overload range of max. capacity 2. wrong connection with load cell or no connection with it. 3. load cell unworkable	1. decrease loaded weight 2. check load cell connection 3. checking load cell : check input and output resistance to judge it is good or not.
Display nnnnnn	1. calibration is no good 2. cell single line is connect a wrong line. 3. the cell is bad.	1. check scale is resisted or not, foot is kept level or not. 2. check load cell connection. 3. checking load cell : check input and output resistance to judge it is good or not.

ERR1	during calibration, no input added weight or input weight exceed max capacity.	Input the correct weight
ERR2	during calibration, the added weights not enough	Added weight at least 10%of Max. capacity, Recommend the weights is 60-80% the Max. capacity
ERR3	during calibration, input single is negative.	1..Check connection is correct or not. 1. Check load cell is damaged or not. 3. renew calibration, if still wrong. pls replace the PCB
ERR4	During calibration, single is unstable	Ensure added weight and scale is stable, start calibration
ERR5	EEPROM check error	change PCB.

5.2 Daily maintenance

1. In order to ensure indicator display clearly and prolong use life, the indicator should not be placed directly on sunlight.


2. Load cell and indicator should be well connected , the system should have a good ground, away from strong electric field, magnetic field.

3. Do not use indicator outside in rainy, better keep it power off.

4. Power off firstly while plug and unplug

5.3 Restore default parameters

Enter setting menu, set C07= 1, press  then

press  exit saving setting, all parameters will be back to default setting.

Note: Pls. do not restore default parameter easily if you are not professional and have not scale calibration.

Default parameter form

parameter	instruction	Default value
C01	Calibration unit	1
C02	decimal digits	0
C03	Division value	1
C04	Max capacity	10000
C05	Empty scales calibration	0
C06	Capacity calibration	0
C07	restore the default parameters	0
C08	Warning tone	1
C09	Automatic power off	0
C10	Power saving mode	0
C11	Hold function	0
C12	Animal weighing mode	0

C13	Upper limit warning	000000
C14	Lower limit warning	000000
C15	Inner code display	
C16	Date	
C17	Time	
C18	Serial interface data output method	0
C19	Serial interface Baud rate	3=9600
C20	Manual zero setting	2
C21	Initial zero setting	10
C22	Automatic zero tracking range	0.5
C23	Automatic zero tracking time	1
C24	Verload range	9
C25	Negative display range	10
C26	Standstill time	1
C27	Standstill range	2
C28	Dynamic filter	0
C29	Noisy filter	2
C30~C40	Reserved menu	